http://nvic.org/Diseases/chickenpox%20facts.htm

Chickenpox and Chickenpox Vaccine

What is Chickenpox?

Chickenpox is caused by the varicella zoster virus, which is a member of the herpesvirus family and is associated with herpes zoster (shingles). Chickenpox is highly contagious but for the majority of children it is a mild disease characterized by small round lesions on the skin that cause intense itching. It lasts from two to three weeks and recovery from the disease usually gives permanent immunity to it. Half of all cases occur in children between the ages of 5 and 9. It has been estimated that only 10 percent of Americans over the age of 15 have never had chickenpox.

Can Chickenpox Cause Injury and Death?

Yes. 3.7 million cases of varicella were estimated to occur in the US annually in the early 1990s. Data from 1992 showed that about 158,000 cases of chickenpox were reported and 100 deaths were reported. More than half of the deaths were in adults because chickenpox is more serious in adults than in children. Up to 20 percent of adults who get chickenpox can develop severe complications such as pneumonia. Other rare complications from chickenpox include serious bacterial infection of the lesions and brain inflammation, which is reported in less than one percent of children who get chickenpox. Most children and adults who develop severe complications from chickenpox disease have compromised immune systems or other health problems.

What is Chickenpox Vaccine?

The Varicella Zoster (chickenpox) vaccine is made from the Oka/Merck strain of live attenuated (weakened) varicella virus. The virus was initially obtained from a child with natural varicella, introduced into human embryonic lung cell cultures, adapted to and propagated in embryonic guinea pig cell cultures, and finally propagated in human diploid cell cultures. The vaccine contains sucrose, phosphate, glutamate and processed gelatin as stabilizers.

How Effective is Chickenpox Vaccine?

All vaccines only provide temporary immunity. Only recovery from natural chickenpox disease will provide lifelong immunity. When the chickenpox vaccine was licensed for public use in 1995, the Food and Drug Administration (FDA) estimated that it was 70 to 90 percent effective in preventing disease. A recent Centers for Disease Control (CDC) study (Dec. 2002) reported that "the effectiveness of the vaccine was 44 percent against disease of any severity and 86 percent against moderate or severe disease." Some are suggesting a second dose of chickenpox vaccine may be needed. Another study in 2002 confirmed that adults exposed to natural chickenpox disease were protected from developing shingles and that there is concern that mass vaccination against chickenpox may cause a future epidemic of shingles, affecting more than 50 percent of Americans aged 10 to 44 years.

Can Chickenpox Vaccine Cause Injury and Death?

Yes. Between March 1995 and July 1998, the federal Vaccine Adverse Events Reporting System (VAERS) received 6, 574 reports of health problems after chickenpox vaccination. That translates into 67.5 adverse events per 100,000 doses of vaccine or one in 1,481 vaccinations. About four percent of cases (about 1 in 33,000 doses) were serious including shock, encephalitis, thrombocytopenia (blood disorder) and 14 deaths. The VAERS data has led to the addition of 17 adverse events to the manufacturer's product label since the vaccine was licensed in 1995, including secondary bacterial infections (cellulitis), secondary transmission of vaccine virus infection to close contacts, transverse myelitis and Guillain Barre syndrome (brain disorders) and herpes zoster (shingles). There have been documented cases of transmission of vaccine virus from a vaccinated child to household contacts, including a pregnant woman. A study in 2002 confirmed that adults exposed to natural chickenpox disease were protected from developing shingles and that there is concern that mass vaccination against chickenpox may cause a future epidemic of shingles, affecting more than 50 percent of Americans aged 10 to 44 years.

Should Chickenpox Vaccine Be Mandated?

No. The majority of children who recover from chickenpox disease do not suffer complications and they are left with lifelong immunity to the disease. The chickenpox vaccine only gives temporary immunity and leaves children vulnerable to disease later in life when complications from chickenpox can be much more serious. Vaccine reaction reports suggest that the vaccine is more reactive than it was thought to be before licensure and there are too many outstanding questions about the true adverse event profile of this live virus vaccine. Parents should have a choice about whether or not to vaccinate their children with the chickenpox vaccine.